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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/786,658	02/25/2004	James B. Roane	24310-00005	2856

24919 7590 10/04/2006

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EXAMINER
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WERNER, JONATHAN S

ART UNIT	PAPER NUMBER
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3732

DATE MAILED: 10/04/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/786,658

Applicant(s)

ROANE, JAMES B.

Examiner

Jonathan Werner

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 7/13/06.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-7, 9-18 and 20-22 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-7, 9-18, and 20-22 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 07 June 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 3/16/06.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

1. This action is in response to Applicant's amendment received on 7/13/06.

### ***Information Disclosure Statement***

2. The information disclosure statement (IDS) submitted on 3/16/06 is noted. The submission is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

### ***Drawings***

3. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the subject matter of claims 10 and 11 (flutes and cutting edges on the shaft and the shaft having an increasing diameter) must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.
4. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet,

and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1-3, 5, 7, 9, 12-14, 16, 18, 20 are rejected under 35 U.S.C. 102(b) as being anticipated by Hagemann et al. (US 2003/0017434). As to claim 1, Hagemann discloses a set of instruments of progressively smaller sizes adapted for use in performing root canal therapy wherein each of the instruments comprises an elongated shaft including a proximal end and a distal end; and a relatively short, enlarged, continuously tapered working length formed on the shaft adjacent to the distal end of the shaft (i.e. Figure 1), said working length being tapered from its upper end to its lower end, having a diameter at its upper end that is greater than the diameter of said shaft

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through the length of the remainder of the shaft and a length that includes 3 millimeters; and including multiple cutting edges defined by flutes (Figure 4). Examiner notes that Applicant is claiming an article of manufacture and not the process of forming/making the device, accordingly, the manner in which the device is formed, i.e. *forming* the multiple cutting edges by multiple flutes, is given little patentable weight. For the purpose of examination in this Office Action, Examiner will understand the claim language to mean that the multiple cutting edges are *defined* by multiple flutes. As to claims 2 and 13, Hagemann shows in Figure 4 the working length includes multiple sets of opposing cutting edges and said flutes are spaced apart so the instrument can be rotated clockwise or counter-clockwise. As to claims 3 and 14, Hagemann discloses (paragraph 0012) that the working part has a helical edge, whereby such a helical edge and flutes are parallel to the axes of the instruments. As to claims 5 and 16, the working length has three cutting edges defined by three flutes thereon as seen in Figure 4. As to claims 7 and 18, Figure 4 shows the working length has three cutting edges defined by three flutes thereon and wherein the cross-sectional shape of the working length is polygonal. As to claims 9 and 20, Figure 2 of Hagemann shows the distal end of each instrument is of a bi-conical shape. As to claim 12, Hagemann further discloses that it is known in the art to use the set of three tools as disclosed in a "crown-down" procedure in which a tool of larger diameter is used first and then following with an instrument having a decreasing diameter to allow for a more extensive far reaching processing of the root canal (paragraph 0002).

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 4 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hagemann. It would have been obvious to one having ordinary skill in the art at the time of Applicant's invention to make the instruments have short enlarged working length tapers of 0.1 mm/mm to 0.05 mm/mm for the smallest of the set since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233.

7. Claims 6 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hagemann in view of Buchanan (US 5,921,775). Hagemann discloses the set of instruments as previously described, but fails to show each instrument has six cutting edges on the working length defined by three flutes. Buchanan, however, teaches a set of endodontic instruments wherein each instrument has six cutting edges on the working length defined by three flutes (Figures 15E, 1-3). Therefore, it would have been obvious to one having ordinary skill in the art at the time of Applicant's invention to make each instrument have six cutting edges on the working length defined by three

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flutes in order to aspirate material which is ground or milled off of the tooth along the length of the tool as taught by Buchanan.

8. Claims 10-11 and 21-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hagemann in view of Bleiweiss (US 2003/0013067). Hagemann discloses the set of instruments as previously described, but fails to show the shaft portion of each instrument includes flutes and cutting edges or has an increasing diameter. Bleiweiss, however, teaches a set of endodontic instruments in which the shaft portion of each instrument includes flutes and cutting edges (14a) and has an increasing diameter shaft (i.e. 74, Figure 1). Therefore, it would have been obvious to one having ordinary skill in the art at the time of Applicant's invention to make the shaft of each instrument between the proximal end thereof and the short enlarged continuously tapered working length thereof include flutes and cutting edges and the shaft of each instrument have an increasing diameter from the working length to the proximal end in order to better engage a root canal when the root canal is curved as taught by Bleiweiss.

### ***Response to Arguments***

9. Applicant's arguments with respect to claims 1 and 12 have been considered but are moot in view of the new ground(s) of rejection.

***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jonathan Werner whose telephone number is (571) 272-2767. The examiner can normally be reached on Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cris Rodriguez can be reached on (571) 272-4964. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.




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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

  
Jonathan Werner  
Examiner  
TC 3700

9/22/06

  
MELBA N. BUMGARNER  
PRIMARY EXAMINER